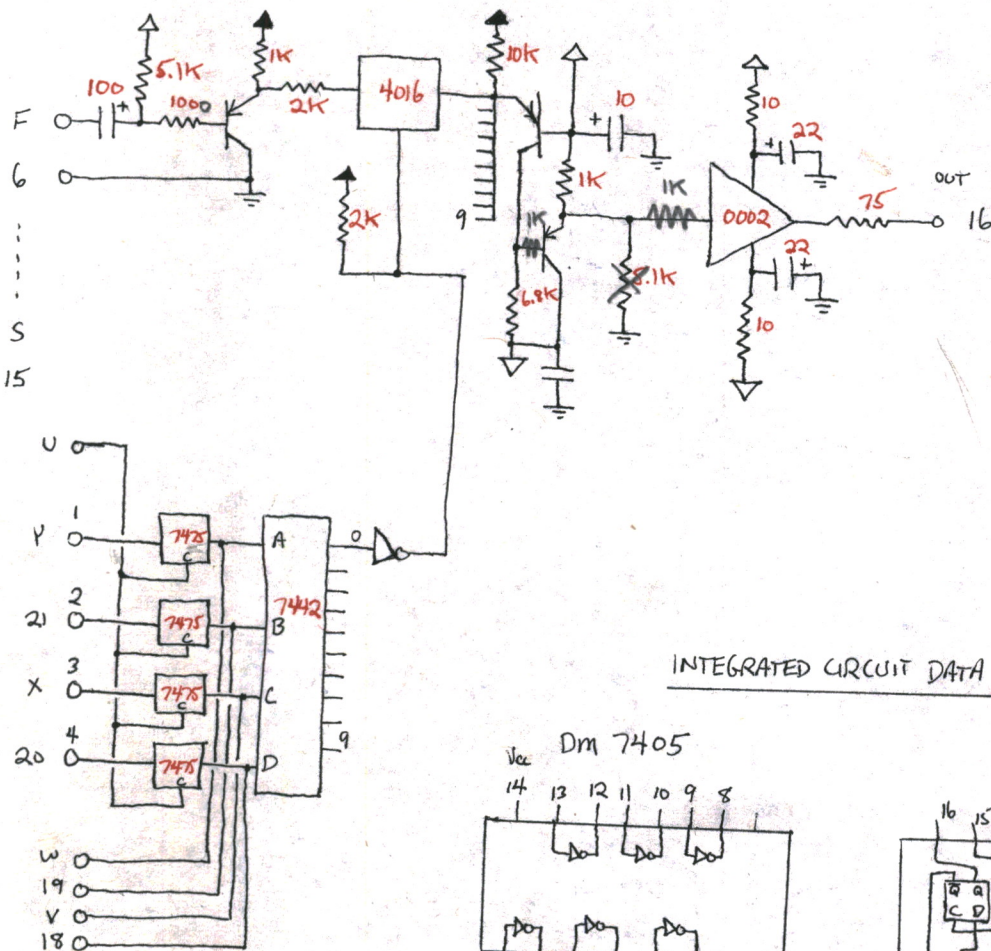


SWITCHER

SWITCHING CARD CIRCUITRY



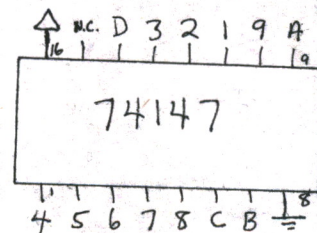
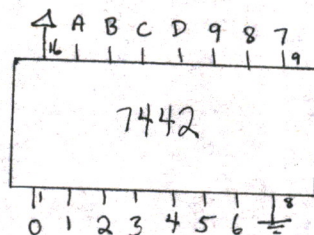
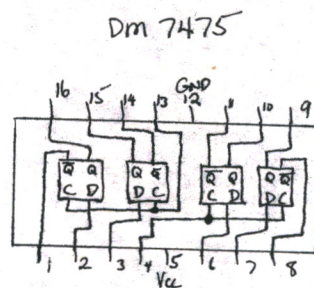
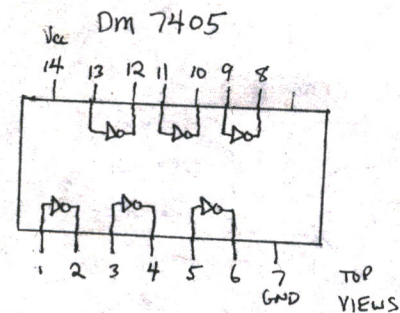
EDGE CONNECTOR

1	A	1	1
+12	B	2	+12
+5	C	3	+5
-5	D	4	-5
	E	5	
0	F	6	0
1	H	7	1
2	J	8	2
3	K	9	3
4	L	10	4
5	M	11	5
6	N	12	6
7	P	13	7
8	R	14	8
9	S	15	9
	T	16	VIDEO OUT
	U	17	OUT
	V	18	
	W	19	
	X	20	
	Y	21	
	Z	22	

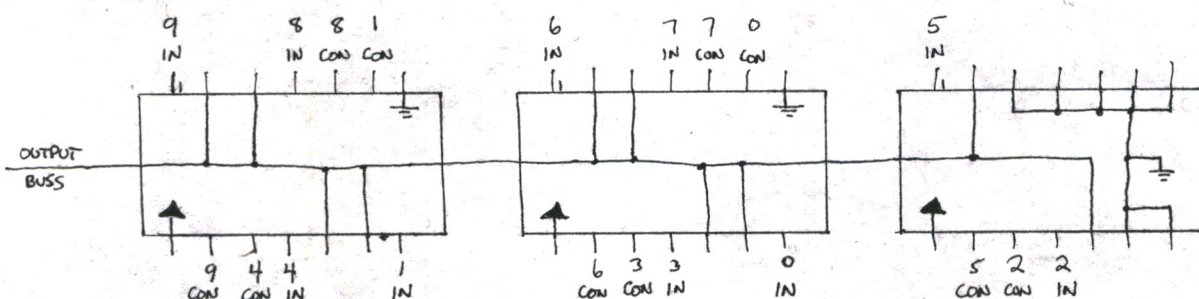
VIDEO
INPUTS

LATCH ENABLE U 17 OUT
LATCH OUT { 3 V 18 4 } LATCH OUT
DATA BUSS { 1 W 19 2 } DATA BUSS
 { 3 X 20 4 }
 { 1 Y 21 2 }
 { 1 Z 22 1 }

INTEGRATED CIRCUIT DATA



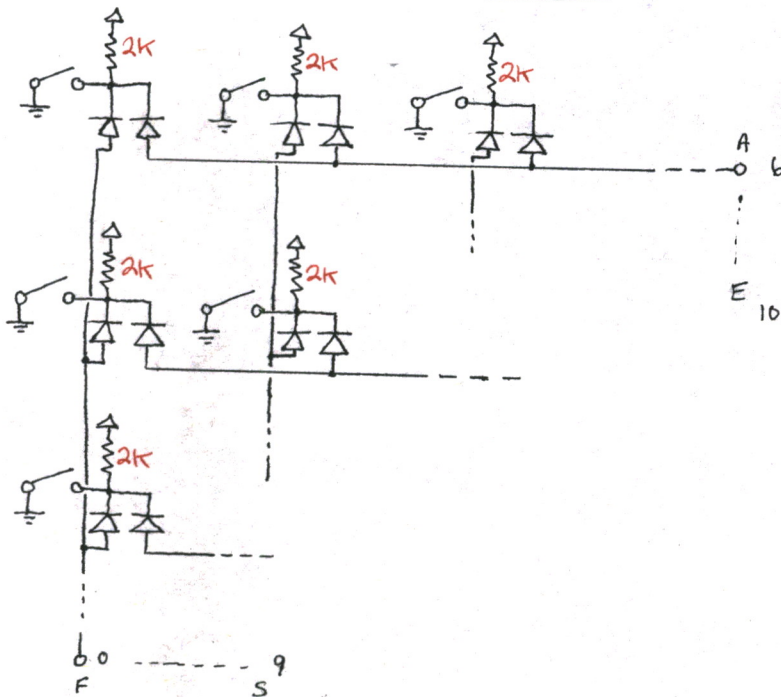
BOTTOM VIEW 4016'S ON CARD



SWITCHER

PANEL AND INTERFACE BOARD

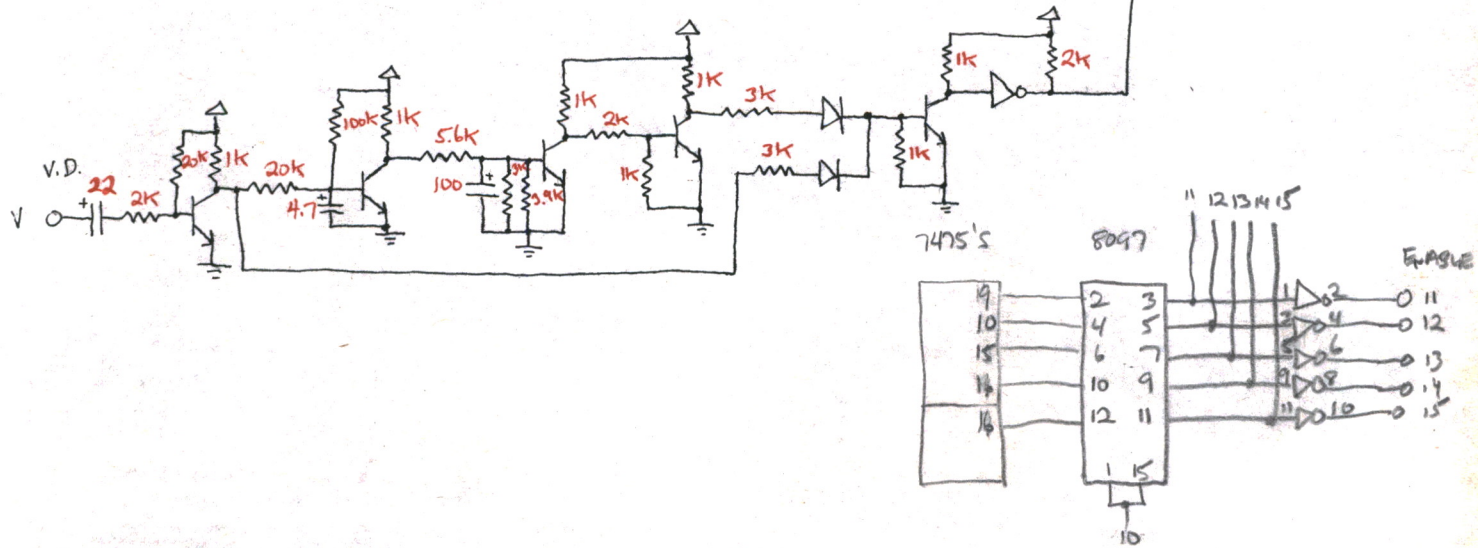
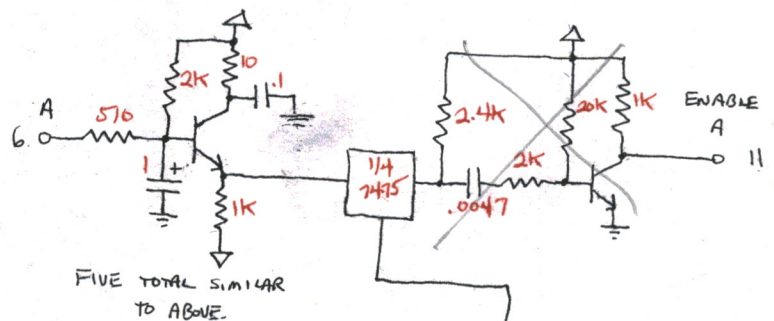
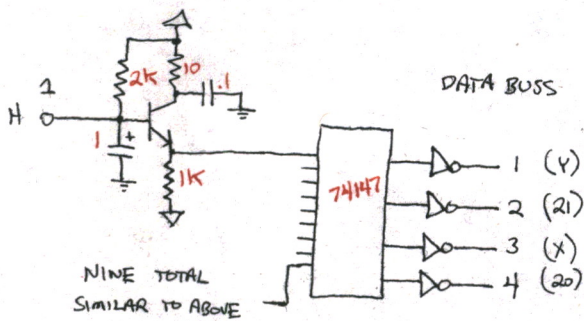
BUTTON MATRIX



EDGE CONNECTOR

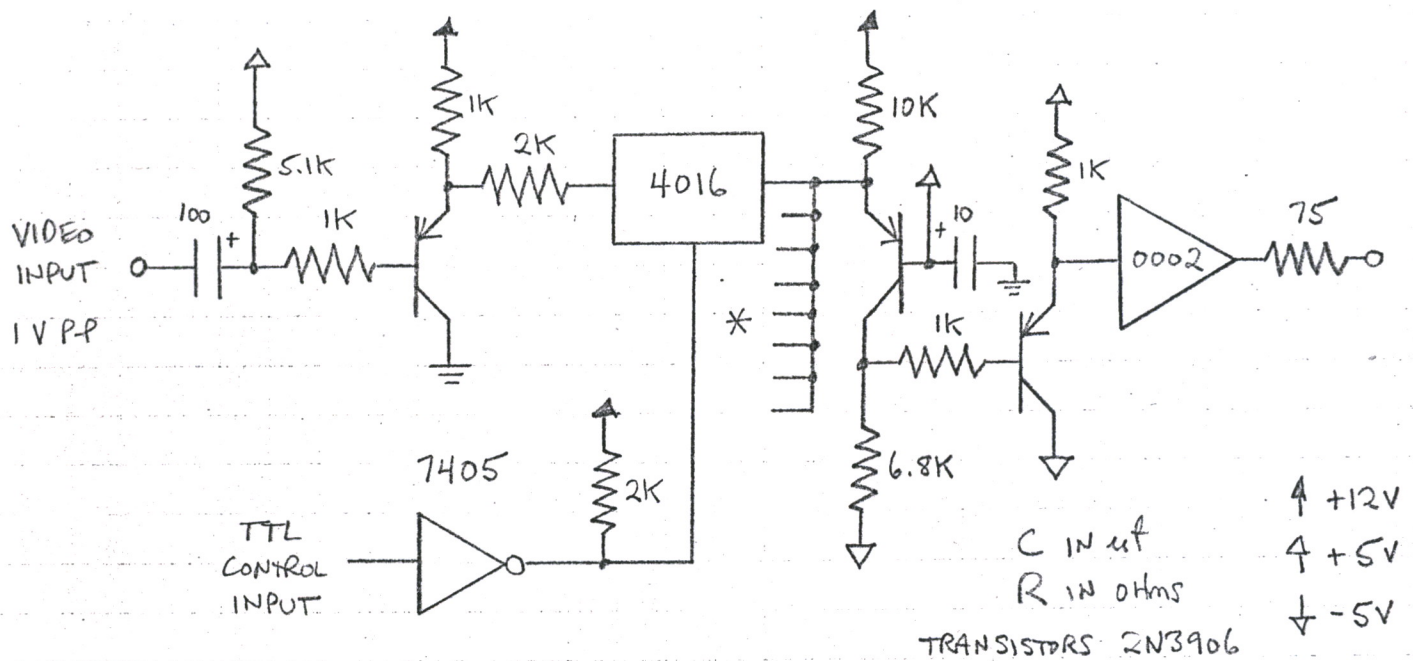
A	1		±	±
B	2		+12	+12
C	3		+5	+5
D	4		-5	-5
E	5			
F	6		0	A
H	7		1	B
J	8		2	C
K	9		3	D
L	10		4	E
M	11		5	A
N	12		6	B
P	13		7	C
R	14		8	D
S	15		9	E
T	16		10	11
U	17		12	13
V	18		14	±
W	19		15	±
X	20		3	4
Y	21		1	2
Z	22		±	±

BOARD CIRCUITRY



VIDEO SWITCH

USING CD4016 CMOS TRANSMISSION GATE



* ANY NUMBER OF INPUT CIRCUITS MAY BE SUMMED HERE AS LONG AS ONLY ONE IS ENABLED AT ANY TIME. 8 IS A GOOD NUMBER SINCE THERE ARE 4 GATES IN EVERY 4016 CHIP.

THIS CIRCUIT HAS THE ADVANTAGES OF BEING MORE COMPACT AND ECONOMICAL, AND USING ONLY 3 POWER SUPPLIES. HOWEVER THE QUALITY IS NOT AS GOOD AS THE CIRCUIT USING THE 2N4091.

JONES

E.T.C. CIRCUITS

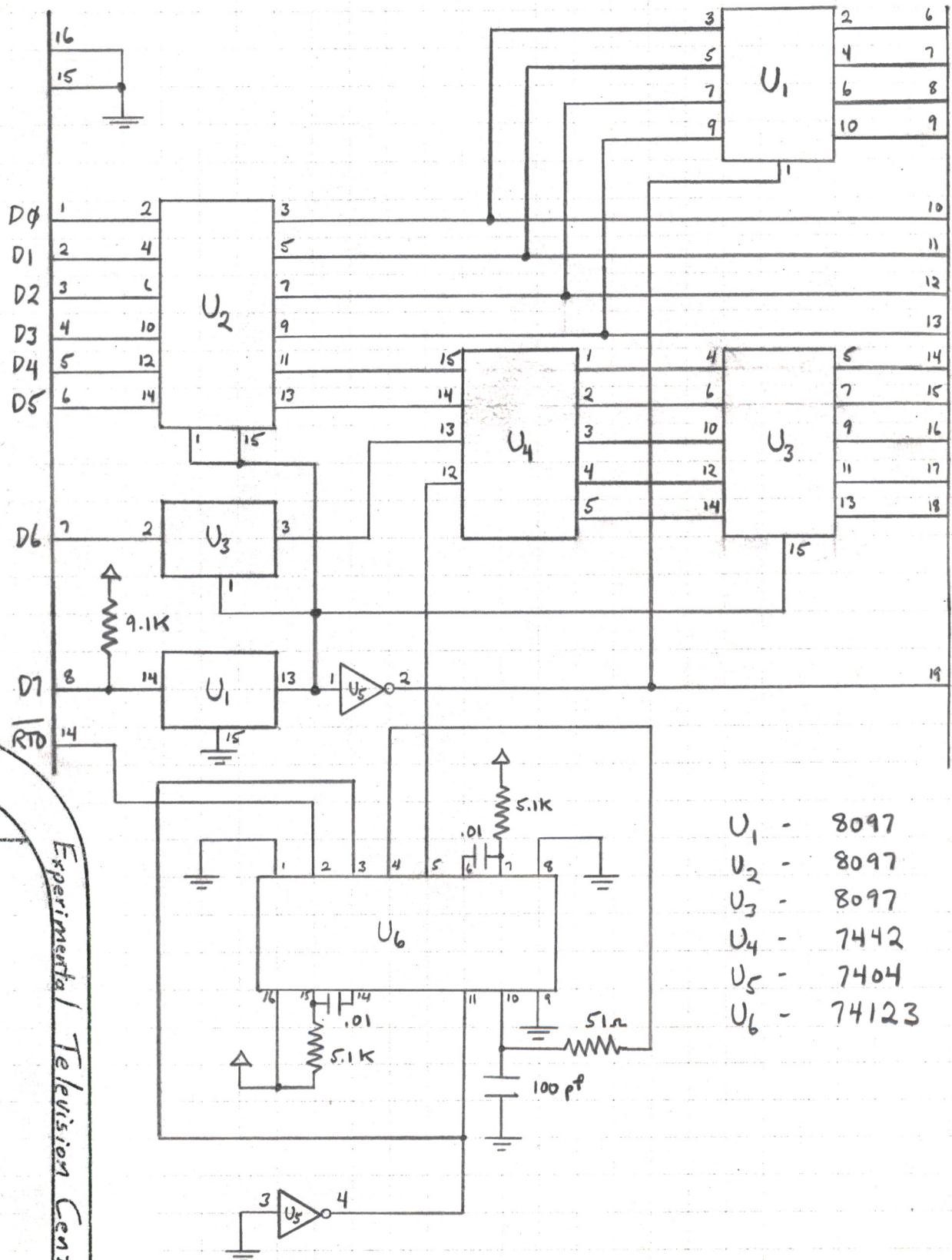
SEPT. 1978, RICH BREWSTER

Experimental Television Center Ltd

INTERFACE CARD JONES SWITCHER

DIP
CONNECTOR

EDGE
CONNECTOR



- U₁ - 8097
- U₂ - 8097
- U₃ - 8097
- U₄ - 7442
- U₅ - 7404
- U₆ - 74123

Experimental Television Center Ltd

(USE TO CONNECT JONES SWITCHER)

EFFICIENCY® LINE No. 4636

PROGRAM TO SEQUENCE SW.

W/RTI CONTROL OF SEQ. LENGTH

```

0000/005037
001002/173776
001004/012700
001006/117700
001010/005237
001012/173776
001014/012700
001016/000015
001020/012702
001022/000000
001024/013701
001026/173742
001030/000000
001032/005300
001034/001375
001036/010237
001040/171560
001042/005202
001044/020201
001046/173776
001050/012700
001052/000015
001054/000002
001056/000000
0170/001032

```

INIT

25
} mov 15 → R0

} mov 0 → R3

} mov (173742) → R1

- BKWD

} DEC R0 OR IF ≠ 0

} mov (R2) → R1

INC R2

} COMP R2 - R1 BHIS

25
} mov 15 → R0

RET

INT. VERT.

ⓐ #170

mov #173776, R0

C. CLR @ #173776

mov #117700, SP

~~INC @ #173776~~

inc @ #173776

mov #25, R0

mov #00, R2

mov @ #173742, R1

B. → BR

A. Dec R0

B BLE B

1754 (BREQ) mov R2, @ #171560

inc R2

BEG (COMP R2, R1

mov #25, R0

RTI

HARVEY -

- 2 7442
- 4 PHONE PLUGS FOR SPEAKER CORDS
- 1 PKG TEST CLIPS

PANEL
INTERFACE

COMPUTER
INTERFACE

DATA BUS

Y	TO	6	
21	TO	7	
X	TO	8	
20	TO	9	
T	TO	19	
16	TO	14	
U	TO	15	
17	TO	16	
W	TO	17	
19	TO	18	
		10	TO Y
		11	TO 21
		12	TO X
		13	TO 20

SWITCH CONTROL OCTAL INPUT

		<u>OCTAL</u>			<u>OCTAL</u>
PANEL ENABLE		200			
OUTPUT 1	INPUT 0	0	OUTPUT 3	INPUT 5	45
	1	1		6	46
	2	2		7	47
	3	3		8	50
	4	4		9	51
	5	5	OUTPUT 4	INPUT 0	60
	6	6		1	61
	7	7		2	62
	8	10		3	63
	9	11		4	64
OUTPUT 2	INPUT 0	20		5	65
	1	21		6	66
	2	22		7	67
	3	23		8	70
	4	24		9	71
	5	25	OUTPUT 5	INPUT 0	100
	6	26		1	101
	7	27		2	102
	8	30		3	103
	9	31		4	104
OUTPUT 3	INPUT 0	40		5	105
	1	41		6	106
	2	42		7	107
	3	43		8	110
	4	44		9	111